REMARKS/ARGUMENTS

Claims 1 - 24 remain in the application.

The Examiner rejected claims 1 - 24 as being obvious having regard to U.S. Patent No. 5,973,609 to Schoch, in view of U.S. Patent No. 6,850,508 to Chang et al.

Generally, the claims of the present invention are directed to a method and system for assembling RLP frames for transmission, and for receiving such frames. The present invention provides a method and data link layer frame structure for reducing overhead in forward link traffic multiplexing by determining a group identification and a user identification for each packet by splitting the N-bit user ID into a group ID N1 and a sub-user ID N2, where N = N1 + N2. Packets are then associated to their respective group, based on their group ID. The group is then assembled in a forward link traffic multiplexing frame, and the packets in the group are identified according to the terminal, or user, to which they are destined, as determined by their sub-user ID.

Schoch describes a system and method for implementing an adaptive medium access control (MAC) using a modified polling technique, in which the protocol control dynamically changes from a contention protocol to a polling protocol, or combination thereof, in response to detected data collision and resource contention rates. The users are divided into groups, and each group is polled sequentially. The number and membership of the groups are adjusted dynamically in accordance with system requirements.

Schoch does not describe, and has no relation to, frame assembly and transmission of multiplexed packets, since it is directed to a multiple access control method. While both multiplexing and multiple access relate to sharing of a communication channel, multiple access involves the remote accessing and scheduling of a resource, not the actual assembly of data for transmission. Accordingly, Applicant submits that Schoch is not in the same field of endeavor as the invention described and claimed in the present invention, and no one of ordinary skill in the art looking for a method to reduce overhead in multiplexed packet frames would refer to a MAC layer resource allocation or polling method.

Schoch describes the creation of a polling signal that includes a grouping identification number in its address field (see e.g. col. 8, lines 4 - 12). When a group receives a polling

signal, members of that group are permitted to transmit data. A terminal determines if it is a member of a currently polled group by comparing its locally stored terminal identification number with the grouping identification number (col. 8, lines 13- 24). Schoch does not describe or suggest a method for assembling a forward link traffic frame for transmission of plurality of packets over a radio link, as claimed in claim 1. Schoch does not determine a plurality of packets associated to a group. Schoch merely determines membership of a terminal within a group. Schoch does not assemble a group of packets in a forward link traffic frame. Schoch merely creates a polling signal that identifies a group. Arguably, Schoch does not provide an identification of the group in a forward link mulitplexing frame, since Schoch does not create a forward link multiplexing frame. Finally, Schoch does not provide an identification of a destined terminal for each of the packets in a group, since Schoch does not describe the transmission of individual packets in a multiplexed frame, but merely permits a given terminal to transmit. In addition, the terminal identification number upon which the Examiner relies is a locally stored identification number, and does not form part of any transmitted frame.

Similarly, Schoch does not describe or suggest a forward link traffic multiplexing frame structure for transmission of a plurality of packets over a radio link, as claimed in claim 10. In particular, Schoch does not describe a frame structure having a plurality of packets associated to a group, a group identification, or a sub-user identification for each of the plurality of packets in the group. Schoch merely describes a polling signal that includes a grouping identification number that permits a terminal to identify itself, based on its locally stored terminal identification number, as forming part of a group permitted to transmit in a given time slot.

For similar reasons, Schoch does not describe a method for detecting a packet in a forward link traffic multiplexing frame that is destined to a terminal as claimed in claim 19. Schoch does not receive a forward link traffic multiplexing frame at a terminal, it receives a polling signal. Schoch does not determine that the forward link traffic multiplexing frame includes a group associated to the terminal, since no frame is received that includes a group. Schoch merely receives a message that includes a grouping identification number. Schoch does not determine that a group includes a packet destined to the terminal, because Schoch is not concerned with the actual transmission of packet data in groups to a terminal. And, Schoch

does not retrieve any packets, instead receipt of the polling signal merely permits a terminal to transmit packets.

Finally, Schoch does not describe or suggest a wireless access network for transmitting a plurality of packets over a radio link. Schoch does include multiple controllers that permit group members to contend for service over a link, but does not include a scheduler for scheduling packets over the radio link. In Schoch, once a terminal has been issued a polling signal by a controller, it is merely permitted to transmit data if it has data to transmit. The controller has no actual knowledge of any data that is available for transmission, and clearly cannot actively schedule such data. As noted above, Schoch does not assemble a forward link traffic frame by determining which packets are associated to a group, assembling the group of determined packets in the forward link traffic multiplexing frame, providing an identification of the group in the forward link traffic multiplexing frame, and providing an identification of a destined terminal for each of the determined packets in the group. Again, Schoch does not assemble packet data for transmission to any terminal, it merely provides resource allocation for packet data transmission.

Chang describes a method for transmitting RLP frames in a block unit basis by generating a block sequence number and multiplexing data from the RLP frames in a succeeding data field. The sequence number can be decoded to permit retrieval of individual frames within the data field.

For these reasons, Applicant submits that neither Schoch nor Chang, alone or in combination, teach or suggest the elements of independent claims 1, 10, 19 or 24, or their respective dependent claims. Withdrawal of the rejection under 35 U.S.C. 103(a) is, therefore, requested.

We believe no fee is required. However, if a fee is due, the Commissioner is hereby authorized to charge any additional fees, and credit any overpayments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Applicant submits that the application is now in condition for allowance, and favorable action to that end is respectfully requested.

Respectfully submitted,
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By: _____

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